



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Mitchell E. Daniels, Jr.
Governor
Thomas W. Easterly
Commissioner

July 16, 2007

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

VIA CERTIFIED MAIL 7005 1160 0001 2611 9442

William J. Rumpke, Jr., Chief Operating Officer
Rumpke of Indiana, LLC
10795 Hughes Road
Cincinnati, Ohio 45251

Dear Mr. Rumpke:

Re: Approval of Major Modification
for Acreage Expansion
to Solid Waste Facility Permit
FP 36-01
Medora Sanitary Landfill
Jackson County

You are hereby notified of the approval of the permit modification application submitted on November 23, 2004, for the above-referenced solid waste management facility, subject to the right of any aggrieved person to file objections thereto, and the terms of this letter and enclosed requirements. The approval of this permit modification does not supersede the requirements of any other agency of local, state, or federal government.

This permit modification for an acreage expansion allows Rumpke of Indiana, LLC, to construct and operate an approximately 83.0-acre lateral expansion onto adjoining property to the south of the current landfill, as well as an approximately 18.6-acre piggyback liner on the existing landfill, subject to the terms of this letter and the enclosed requirements. In accordance with 329 IAC 10-13-4, solid waste facility permit FP 36-01, as amended by this permit modification, does not authorize: any injury to any person or private property; the invasion of other private rights; the infringement of federal, state, or local laws or regulations; nor preempt any duty to comply with other state or local requirements.

This modification to the solid waste facility permit consists of plans and specifications for an acreage expansion. The permitted expansion area adjoins the present site and includes, but is not limited to, the following features:

- * composite liner system including geosynthetic and clay liners
- * leachate collection system
- * gas monitoring system
- * composite final cover system including geosynthetic and clay layers
- * ground water monitoring system

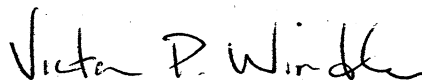
This solid waste disposal facility is located at County Road 875 West and contains approximately 150.2 acres permitted for landfilling.

Rumpke of Indiana, LLC, is certified as having completed the requirements for a modification to the solid waste facility permit FP 36-01 in accordance with IC 36-9-30 and IC 13-15 (formerly IC 13-7), and the regulations promulgated thereunder. Authorization is hereby granted to construct the area for the newly permitted capacity and operate the solid waste facility described above, subject to the terms and conditions of this letter and its requirements.

Pursuant to IC 4-21.5, a Petition for Review of this permit modification letter may be initiated by you, as applicant, or by an "aggrieved or adversely affected person". This permit modification becomes effective once all applicable time periods for petitioning for Stays of Effectiveness have expired, unless you are notified in writing by an Environmental Law Judge that the permit modification has been further stayed. As discussed in our enclosed Notice of Decision, if you wish to challenge this decision, you must file a Petition for Review with the Office of Environmental Adjudication within eighteen (18) days from the date that this permit modification letter was mailed, pursuant to IC 4-21.5-3-7.

If you have any questions or comments about your application or the permitting process, call (800) 451-6027, press 0 and ask for John Hale or extension 2-8871, or call direct at (317) 232-8871.

Sincerely,



for Thomas Linson, Chief
Permits Branch
Office of Land Quality

Enclosure: Permit Requirements
Notice of Decision
Letter to the Tribune
Letter to the Medora Library
Leachate Generation Report Form

cc: Jackson County Health Department (with enclosure)
The Honorable Monte Striegel, Jackson County Commissioners (with enclosure)
The Honorable Gary Darlage, Jackson County Commissioners (with enclosure)
The Honorable Steve Gill, Jackson County Commissioners (with enclosure)
Jackson County Solid Waste Management District (with enclosure)
The Honorable James Davers, President, Medora Town Council (with enclosure)

PERMIT REQUIREMENTS

- A. General Permit Requirements
- B. Pre-Operational Requirements
- C. Construction Requirements
- D. Operational Requirements
- E. Gas Emission Control and Monitoring
- F. Ground Water Monitoring Requirements
- G. Closure Requirements
- H. Post-Closure Requirements
- I. Financial Responsibility for Closure and Post-Closure

A. GENERAL PERMIT REQUIREMENTS

- A1. The permittee shall comply with all the applicable requirements of 329 IAC 10, where not specifically addressed in this permit.
- A2. It is recommended that all required submittals be printed double-sided and sent via certified mail. All reports, notifications, ground water reports, and other information required to be submitted by this permit should be sent to:

**Kelly Hall
Indiana Department of Environmental Management
Office of Land Quality
Solid Waste Permits Section - Mail Code 65-45
100 North Senate Avenue, Rm. 1154
Indianapolis, Indiana 46204-2251**

- A3. The permittee shall report to the Indiana Department of Environmental Management (IDEM) any event which may cause an imminent and substantial endangerment to human health or the environment. This information must be reported orally to IDEM within twenty-four (24) hours from the time the permittee becomes aware of the event. The permittee shall also provide a written report to IDEM within five (5) days of the time of the event. The report shall include for each event: date and time, possible causes, actions taken or planned to correct, reduce, eliminate, and prevent recurrence of the event.
- A4. The permittee shall construct and operate the facility as described in the application unless otherwise specified by the permit. For the purposes of this permit, the application means all the narrative, construction plans, specifications, and appendices submitted to the Indiana Department of Environmental Management (IDEM) on November 23, 2004, and subsequent responses received on March 30 and December 5, 2005, and March 30, 2007.
- A5. The permittee shall at all times properly manage, operate, and maintain all facilities and systems of treatment and control which are installed or used by the permittee to achieve compliance with the construction and operating specifications included in the application and permit requirements. Proper operation and maintenance includes, but is not limited to, proper handling of solid waste, sufficient funding, adequate operator staffing and training, and laboratory and process controls with appropriate quality assurance procedures.
- A6. No construction or operations may begin in that part of the proposed expansion area where plating sludge had been disposed (the former Willcutt Landfill), until IDEM has issued a Corrective Action Management Unit (CAMU) permit to remove and relocate this sludge to a new CAMU, and the sludge is removed and relocated to the new CAMU.

B. PRE-OPERATIONAL REQUIREMENTS

- B1. The permittee shall comply with 329 IAC 10-19 (Pre-operational Requirements and Operational Approval).
- B2. The permittee shall establish financial responsibility for closure and post-closure prior to the placement of any waste in the new expansion area landfill as specified in Section I, Financial Responsibility for Closure And Post-Closure, of this permit.
- B3. The pre-operational notice from the permittee must include complete construction and drilling logs for wells.

C. CONSTRUCTION REQUIREMENTS

- C1. The permittee shall comply with 329 IAC 10-17 (Construction Requirements).
- C2. The permittee shall notify IDEM in writing at least fifteen (15) days in advance of the construction of each unit or portion of the unit.
- C3. The permittee shall submit a construction certification report as required by 329 IAC 10-19.
- C4. All liner and final cover components such as: clay-type soil, drainage material, geomembrane, geotextile, and protective cover must be tested and installed as specified in the approved Construction Quality Assurance (CQA) Plan and the applicable requirements of 329 IAC 10-15-7 and 329 IAC 10-17 except as otherwise noted in this permit.
- C5. All leachate collection pipes and sumps shall be free of obstructions prior to placement of waste in a newly constructed unit or portion of the unit.
- C6. The base grades for the facility shall be constructed as shown on Sheet 5 of 14 entitled "Proposed Leachate Collection System," revised March 2007, and received by IDEM on March 30, 2007.
- C7. Upon selection of the specific geosynthetic materials for the liner and the final cover system components, the permittee shall perform the appropriate tests to document the interface friction values for the geosynthetic materials, soil liner, drainage layer and protective layer to be used in the construction of the facility. In the event that the newly obtained site-specific test results show that the values are less than those assumed in the calculations in the permit application, the permittee shall revise the slope stability analyses to document that the minimum factor of safety has been obtained, as required by 329 IAC 10-15-8, and 329 IAC 10-17, as applicable. The material-specific interface friction values and/or the revised slope stability analyses shall be included in the construction certification report, as required by 329 IAC 10-19.

- C8. The leachate removal system design shall consist of a series of gravel drains (pipeless design) located down the center of the cells and sloping to one of two (2) leachate removal points. The collection system gravel shall consist of GP or GW gravel with a hydraulic conductivity greater than or equal to one (1) centimeter per second and containing less than five percent (5%) fines.

D. OPERATIONAL REQUIREMENTS

- D1. The permittee shall comply with 329 IAC 10-20 (Operational Requirements).
- D2. The site benchmark shall be maintained throughout the entire life and post-closure care period of the facility and noted on all submitted maps.
- D3. Solid waste disposal shall be limited to the areas delineated by the solid waste boundary line as shown on Sheet 9 of 14, entitled "Initial Facility Development Plot Plan," dated March 2007, and received by IDEM on March 30, 2007.
- D4. The permittee shall maintain, as applicable, an adequate leachate storage capacity during the landfill operation and the post-closure period to ensure proper operation of the leachate collection system and compliance with 329 IAC 10-20-20 (the leachate collection system and sump areas located within the waste disposal unit are not considered adequate storage). The leachate level in the sumps and manholes shall be maintained at the approved depth. The leachate basin storage area shall be operated in an environmentally safe manner. Within twenty-four (24) hours, the permittee shall implement a leachate contingency plan if the facility is not in compliance with 329 IAC 10-20-20.
- D5. The permittee shall conduct leachate sampling and analysis as required by the wastewater treatment plant or other leachate disposal facilities, as applicable, and the results shall be kept in the facility's operating record. The volume of leachate generated shall be submitted to IDEM on an annual basis on the enclosed "Leachate Generation Report Form" or a similar form developed by the permittee. The annual leachate report must be submitted on or before March 1 of each year for the previous year. The submittal shall include a summary report on leachate recirculation operational performance indicating any problems that may have occurred during the past year such as excessive leachate ponding, odors, leachate seeps, surface leachate runoff and remediation steps taken to correct problems.
- D6. a. The permittee must comply with all requirements of 329 IAC 10-20-19 for the leachate basin storage area. As required by 329 IAC 10-15-10(4), the permittee will sample the leak detection liquid on a semi-annually basis unless more frequent sampling is required by the commissioner. Samples will be analyzed for the constituents such as chloride, sulfate, ammonia, pH, and specific conductance. In the event that IDEM deems it necessary, IDEM may require additional constituents to be analyzed as a result of an exceedance.
- b. The Action Leakage Rate (ALR) for initial and long term conditions is estimated to be 15.5 gallons per day per leak detection system (2 systems) for the leachate basin storage area.

- c. In the event that an ALR is exceeded for the leachate basin area, the permittee will immediately sample the liquid from the leachate basin and analyze for the parameter listed in part D.6.a of this permit. The permittee will notify IDEM in writing of the exceedance within seven (7) days of the determination. The permittee will further investigate the sources of liquids and report to IDEM their findings and the lab results of the analyses within thirty (30) days after detecting an exceedance.

D7. The storm water pollution prevention plan (SWP3) drawings and documentation dated March 28, 2007, and received by IDEM on March 30, 2007, has been approved with the following requirements:

- a. The surface water from the facility is currently collected by drainage swales, downdrops, and ditches, which in turn convey the water to Guthrie Creek and tributaries of Guthrie Creek.
- b. The permittee shall comply with all of the permit requirements that pertain to any previous modification and the renewal concerning the SWP3, unless otherwise specified here.
- c. The permittee shall assure compliance with the requirements of 329 IAC 10-15-12.
- d. The permittee shall follow the SWP3 plans and documentation dated March 28, 2007, and received by IDEM on March 30, 2007.
- e. Semi-annual storm water sampling analyses data taken from the facility sedimentation ponds/basins must be submitted within sixty (60) days following the collection of each semi-annual sample. Other storm water discharge outfalls where storm water exposed to industrial activity discharges to waters of the states must follow the sampling procedures as described in 327 IAC 15-6-7.3(a)(5) through (9) and monitor the parameters listed in 329 IAC 10-20-11(f)(1).
- f. In the event that there are any changes to an SWP3 as a result of management practices, administration changes, or other similar changes, the updated plan must be kept on-site and must be available at the time of an IDEM on-site inspection.
- g. All records and information resulting from the storm water sampling events, including all records of analyses performed and calibration and maintenance of all instrumentation, must be retained for a minimum of three (3) years.
- h. All land disturbance activities must be in compliance with the erosion/sedimentation control practices as required by and applicable to 329 IAC 10. The facility may use the document entitled "Indiana Handbook for Erosion Control in Developing Areas Manual" dated October 1992. This manual can be obtained from the Division of Soil Conservation, Indiana Department of Natural Resources.

- i. Per 329 IAC 10-20-28 regarding self-inspection, the permittee shall monitor and inspect the facility a minimum of twice each month, including all temporary and permanent erosion and sedimentation control structures such as, but not limited to, drainage features, berms, dikes, outfall discharges, rip-rap, silt fences, vegetative cover, erosion control blankets or geotextiles, sediment traps and basins, pumps and sumps, culverts and on-site borrow pits.

D8. If any waste is excavated from the borrow area, the permittee shall segregate it, characterize it, and manage it in accordance with applicable regulations.

E. GAS EMISSION CONTROL AND MONITORING

- E1. The permittee shall comply with 329 IAC 10-20-17 (Explosive Gases).
- E2. Pursuant to 329 IAC 10-20-17, the permittee must follow the methane monitoring program (MMP) dated November 23, 2004, in the major modification application. The permittee must revise the MMP if notified to do so by IDEM or if methane gas levels trigger additional remediation as required by 329 IAC-10-20-17(d). Any revision to the MMP must be approved by IDEM prior to implementation.
- E3. This letter concerns only the results from a review of an application for a solid waste facility permit. It does not constitute the following:
- a. The review of an NSPS/EG design plan for compliance with the criteria found at 40 CFR 60.
 - b. The results of a review for a Title V operating permit for your facility.

F. GROUND WATER MONITORING REQUIREMENTS

- F1. The permittee shall comply with 329 IAC 10-21.
- F2. The detection monitoring system consists of ground water monitoring wells listed in the ensuing table. Of these MED10, MED11, MED17, CAM1 and CAM2 are up gradient of the facility. Monitoring wells shall be installed on or before the date of certification of the liner for the first cell listed in the left hand column titled Cell Number. Wells removed shall be abandoned according to 329 IAC 10-21-1(i).

Cell Number	Wells to be added to system	Existing monitoring system	Wells removed from system
5, 5PB	MED 10, MED 11, MED 17, CAM-1, CAM-2, B103, B122	MED1, MED1BS, MED1BI, MED1BD, MED3 MED 4, MED 5RR, MED 6R, MED 7R, MED 8, MED 9	MED 2R
6, 7	B112	MED1, MED1BS, MED1BI, MED1BD, MED3, MED 4, MED 5RR, MED 6R, MED 7R, MED 8, MED 9, MED 10, MED 11, MED 17, CAM 1, CAM 2, B103, B122	

8 8PB		MED1, MED1BS, MED1BI, MED1BD, MED3, MED 4, MED 5RR, MED 6R, MED 7R, MED 8, MED 9, MED 10, MED 11, MED 17, CAM 1, CAM 2, B103, B112	B122
9, 9PB	MED 16	MED1, MED1BS, MED1BI, MED1BD, MED 4, MED 5RR, MED 6R, MED 7R, MED 8, MED 9, MED 10, MED 11, MED 17, CAM 1, CAM 2, B103, B112	MED 3
10	MED 14	MED1, MED1BS, MED1BI, MED1BD, MED 4, MED 5RR, MED 6R, MED 7R, MED 8, MED 9, MED 10, MED 11, MED 17, CAM 1, CAM 2, B103, MED 16	B112
11	MED 15	MED1, MED1BS, MED1BI, MED1BD, MED 4, MED 5RR, MED 6R, MED 7R, MED 8, MED 9, MED 10, MED 11, MED 17, CAM 1, CAM 2, B103, MED 14, MED 16	
12, 13		MED1, MED1BS, MED1BI, MED1BD, MED 4, MED 5RR, MED 6R, MED 7R, MED 8, MED 9, MED 10, MED 11, MED 17, CAM 1, CAM 2, B103, MED 14, MED 15, MED 16	
14	MED 13, MED 12	MED1, MED1BS, MED1BI, MED1BD, MED 4, MED 5RR, MED 6R, MED 7R, MED 8, MED 9, MED 10, MED 11, MED 17, CAM 1, CAM 2, MED14, MED15, MED 16	B103
15		MED1, MED1BS, MED1BI, MED1BD, MED 4, MED 5RR, MED 6R, MED 7R, MED 8, MED 9, MED 10, MED 11, MED 17, CAM 1, CAM 2, MED 12, MED 13, MED14, MED15, MED 16	

- F3. Detection monitoring shall take place in April and November of every year.
- F4. Pursuant to 329 IAC 10-21-2, the permittee must follow the ground water monitoring plan (Sampling and Analysis Plan (SAP)) approved October 5, 2005. The permittee must revise the plan if notified to do so by IDEM. Any revision to the plan will not be considered a modification of this permit.
- F5. All analytical data from required ground water sampling events must be submitted to IDEM within sixty (60) days of the sampling event. This submittal must include one (1) original unbound laboratory certified report with field sheets and chain of custody forms; and one (1) electronic version of the analytical results with the field parameters including pH, specific conductance, dissolved oxygen, Eh, temperature, well depth, depth to water, and static water elevation.

The electronic version must be on a DOS formatted 3 ½-inch diskette, 100 MB Zip disk, or CD-ROM; or may be submitted via electronic mail (e-mail) to the e-mail address, **olqdata@idem.in.gov**. The facility name and a brief description of the file contents should be clearly marked on the digital media or typed in the subject heading of the e-mail. The electronic version should be submitted as an ASCII, tab-delimited text file and contain the facility's name, permit number, and laboratory name. Field parameters and analytical results must include the fields listed below:

- a. Sampling Date: Month, day, and year
- b. Well Name: Include permitted and corrective action wells
- c. Sample Type: Regular, duplicate(s), trip blank(s), equipment blank(s), field blank(s), verification re-sample(s) and replicate(s)
- d. Sample Medium: Ground water, leachate, soil, surface water, etc.
- e. Species Name: Chloride, sodium, ammonia, etc. Identify metals as being analyzed in the "total" phase or "dissolved" phase. Example: arsenic (dissolved).
- f. Concentration (results): The entry must be a number. Do not enter text such as "NA", "ND", or "<".
- g. Concentration Units: mg/l, ug/l, standard units for pH, degrees Celsius (°C), or degrees Fahrenheit (°F) for temperature, mvolts for Eh, and umhos/cm for specific conductance
- h. Detected: Yes or no
- i. Detection Limit
- j. Analytical Methods
- k. Estimated Value: Indicate "Yes" if the reported value is an estimated value. If a value is estimated, use the "Comment" field to explain why the value was estimated.
- l. Comment: Analytical lab and/or field personnel comments regarding the reported results.

- F6. Pursuant to 329 IAC 10-21-6, the facility shall develop and submit a Statistical Evaluation Plan (StEP) proposal within 90 days of the approval. The facility will submit a revised StEP plan for approval once sufficient background has been collected to indicate the most effective statistical method based on site specific data for the CAMU unit. Any revision to the plan will not be considered a modification of this permit.
- F7. The facility shall monitor surface water in the creek near the sedimentation and leachate ponds semi-annually for the parameters which appear in the CAMU monitoring list. These samples will be collected and submitted at the same time as the ground water monitoring is performed. The results of these samples will be compared to the Safe Drinking Water Act, Maximum Contaminant Level (MCL) for compliance.

G. CLOSURE REQUIREMENTS

- G1. The permittee shall comply with 329 IAC 10-22 (Closure Requirements).
- G2. The permittee shall notify IDEM in writing at least fifteen (15) days prior to the intended date to begin closure of each unit or portion of the unit.
- G3. The final cover shall be constructed in accordance with the approved final grading plan, on Sheet 6 of 14, entitled "Proposed Final Contours," dated March 2007, and received by IDEM on March 30, 2007. Final cover shall be constructed whenever any area of the landfill is filled to its approved elevation, less the distance attributed to the cover materials or within one hundred eighty (180) days of receiving its final waste volume. This facility closure contains 142.3 acres of composite cover system and 7.9 acres of clay cover system.
- G4. Final closure shall proceed in accordance with the facility closure plan dated March 2007, received by IDEM on March 30, 2007, and the applicable requirements of 329 IAC 10.
- G5. The cover materials must be tested and placed in accordance with the approved Construction Quality Assurance plan.

H. POST-CLOSURE REQUIREMENTS

- H1. The permittee shall perform post-closure monitoring and maintenance in accordance with the applicable requirements of 329 IAC 10-23 and with the facility post-closure plan dated March 2007 and received by IDEM on March 30, 2007.

I. FINANCIAL RESPONSIBILITY FOR CLOSURE AND POST-CLOSURE

- I1. The permittee shall establish and annually update a financial responsibility instrument as required by 329 IAC 10-39 for closure and post-closure. Annual updates shall be submitted within thirty (30) days of the anniversary date of the original submittal. The amount for closure shall not be less than the closure cost estimate specified in the major permit modification application. The amount for post-closure shall not be less than the post-closure cost estimate calculated in the post-closure plan included in the major modification application.
- I2. The permittee shall establish the funding for the revised closure and post-closure cost no later than thirty (30) days after receipt of the permit and shall furnish proof of the established funding to IDEM no later than forty-five (45) days after receipt of the permit.
- I3. A final contour map which meets the requirements of 329 IAC 10-39-2(c) must also be submitted annually.
- I4. If facility operations, site design, or ground water monitoring are significantly changed to affect the financial responsibility amount, then the permittee shall amend the closure and post-closure cost estimates to reflect these changes.

Leachate Generation and Recirculation Report Form

Facility: _____

Year: _____

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total	Area Open ¹ Acres	Area Closed ² Acres	GPAD ³
Total Gallons Generated																
*Gallons disposed off-site																
*Gallons evaporated in LES ⁴																
*Gallons Recirculated Vertical Injection Method																
*Gallons Per Ton of Waste for Vertical Injection Method																
*Gallons Recirculated Horizontal Injection Method																
*Gallons Per Ton of Waste for Horizontal Injection Method																
*Gallons Recirculated Working Face Spray Method																
*Gallons Per Ton of Waste for Working Face Spray Method																
Rainfall in inches ⁵																

Locations of off-site disposal:

Notes: *

Only applicable to those facilities that are approved for leachate recirculation or approved for leachate evaporation at an approved Leachate Evaporation System.

1. _____
2. _____
3. _____

1. Area of landfill under operation, but not closed according to the approved closure plan. Please provide the breakdown of the area under operation in terms of composite liner vs. clay liner with a leachate collection system.
2. Area of landfill that is closed with final cover. Please provide the breakdown of the final cover in terms of clay soil vs. composite cover.
3. Gallons Per Acre Per Day
4. Leachate Evaporation System
5. Please use the available rainfall data from the city nearest your facility.

Additional notes: At a minimum, the following information shall also be submitted with the report if applicable to the facility.

- a. Location of the leachate recirculation in terms of the cell #, the phase #, and the area of the cell/phase in acres.
- b. Approximate volume of the in place waste in tons, where the leachate recirculation took place.
- c. Total amount of leachate being recirculated in a specific cell/phase in gallons at the time of this report. If multiple cells/phases are receiving recirculation, please specify.
- d. Estimated total air space of the designated cell/phase converted from cubic yards to tons for each cell/phase where leachate recirculation took place, excluding daily and final cover except the working face method.
- e. Cumulative volume of leachate being injected / recirculated into the cell/phase to date.
- f. Effective area of the landfill in acres where leachate recirculation is taking place; for example, if a cell/phase is approximately 5 acres, but only 1-2 acres of the cell/phase are receiving recirculation, then the application rate in terms of gallons per ton of in place waste, must be based on the 1-2 acres and not on the entire 5 acres.